

Application: 10/806,678
Filed: Mar. 22, 2004
Examiner: James M. Hewitt, Art Unit 3679

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CLAIM AMENDMENTS

1 Claim 1 (currently amended): A pipe assembly, comprising: first and second corrugated
2 metal pipes having respective first and second longitudinal axes and respective first and
3 second ends; a first plastic cuff molded formed along the periphery of the first pipe end
4 and embedding the first pipe end therein and a mating second plastic cuff molded formed
5 along the periphery of the second pipe end and embedding the second pipe end therein;
6 each of the first and second cuffs comprising a shoulder formed around the periphery of the
7 associated first and second pipes; the first plastic cuff comprising a tongue, the second
8 plastic cuff comprising a groove, and the first and second cuffs forming a mating tongue
9 and groove joint peripherally spanning the first and second pipe ends; and fastening means
10 spanning the first and second shoulders and abutting the first and second shoulders, the
11 fastening means drawing the first and second pipe ends together axially and thereby sealing
12 the first and second pipe ends along the tongue and groove joint.

1 Claim 2 (canceled)

1 Claim 3 (original): A pipe assembly, comprising: first and second metal pipes having
2 longitudinal axes and respective first and second ends; a first plastic cuff formed along the
3 periphery of the first pipe end and a second plastic cuff formed along the periphery of the
4 second pipe end, the first and second cuffs having a tongue and a groove, respectively, with
5 the first, tongue cuff inserted into the second, groove cuff; first and second wire hoops
6 mounted over the first and second pipe ends; and a plurality of bolt fasteners for tightening
7 the first and second hoops and the first and second pipe ends axially, to seat the first and

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8 second pipe ends against the first and second cuffs, seat the first and second cuffs against
9 one another, and seal the pipe ends against the cuffs.

1 Claim 4 (original): A pipe assembly, comprising:

2 first and second metal pipes having respective first and second ends;

3 first and second plastic cuffs formed over the first and second pipe ends,

4 respectively, each cuff forming a shoulder;

5 first and second wire hoops mounted around the first and second pipe ends,

6 respectively; and

7 a plurality of fasteners extending between the hoops and clamping the hoops against

8 the shoulders and the first and second pipe ends against the first and second cuffs.

1 Claim 5 (original): Components for a composite metal and plastic pipe assembly,
2 comprising:

3 first and second metal pipes having longitudinal axes and respective first and second
4 ends;

5 a first plastic cuff formed around the periphery of the first pipe end and a second

6 plastic cuff formed around the periphery of the second pipe end, the first and second cuffs

7 having a tongue and a groove, respectively, adapted for mating when the first cuff is

8 inserted into the second cuff;

9 first and second wire hoops of size and configuration adapted for mounting over and

10 engaging the first and second pipe ends, respectively; and

11 a plurality of fasteners adapted for clamping the first and second hoops and the first

12 and second pipe ends axially.

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1 Claim 6 (currently amended): A method for fastening and sealing first and second pipes at
2 respective first and second ends thereof, the method comprising: molding first and second
3 mating, plastic cuffs around the periphery of the respective first and second pipe ends, each
4 cuff having a shoulder; assembling a first hoop around the first pipe end adjacent the
5 shoulder of the first cuff and a second hoop around the second pipe end adjacent the
6 shoulder of the second cuff ~~around the first pipe end and the second pipe end adjacent the~~
7 ~~shoulders thereof~~; and clamping the first and second hoops together generally axially
8 along the first and second pipes, thereby clamping the hoops against the shoulders and the
9 first and second pipe ends against the first and second cuffs.

1 Claim 7 (new): The pipe assembly of claim 1, the fastening means comprising:
2 first and second hoops mounted around the first and second pipe ends, respectively,
3 and abutting the first and second shoulders, respectively; each hoop comprising a plurality
4 of holes or loops spaced apart around the hoop at intervals selected for aligning the holes
5 of the first and second hoops by rotating the hoops about the axes of the first and second
6 pipes; and
7 a plurality of bolts extending between the hoops and through the aligned holes
8 thereof for clamping the hoops against the shoulders thereby drawing the first and second
9 pipe ends together axially and sealing the first and second pipe ends along the tongue and
10 groove joint.

1 Claim 8 (new): The pipe assembly of claim 7,
2 the first hoop further comprising therein a first gap; a first end of the first hoop
3 being on one side of the first gap; a second end of the first hoop being on the opposite side
4 of the first gap; and first means joining the first and second ends of the first hoop at the
5 first gap; and

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6 the second hoop further comprising therein a second gap; a first end of the second
7 hoop being on one side of the second gap; a second end of the second hoop being on the
8 opposite side of the second gap; and second means joining the first and second ends of the
9 second hoop at the second gap.

1 Claim 9 (new): The pipe assembly of claim 8, the first means comprising a first weld; and
2 the second means comprising a second weld.

1 Claim 10 (new): The pipe assembly of claim 8:

2 the first means of the first hoop comprising a first loop mounted on one side of the
3 first gap and a second loop mounted on the opposite side of the first gap; the first and
4 second loops of the first hoop being oriented generally transverse to the plane of the first
5 hoop; and a first bolt extending through the first and second loops for drawing together the
6 first and second loops at the first gap and thereby tightening the first hoop against the
7 associated pipe; and

8 the second means of the second hoop comprising a third loop mounted on one side
9 of the second gap and a fourth loop mounted on the opposite side of the second gap; the
10 third and fourth loops of the second hoop being oriented generally transverse to the plane
11 of the second hoop; and a second bolt extending through the third and fourth loops for
12 drawing together the third and fourth loops at the second gap and thereby tightening the
13 second hoop against the associated pipe.